

ADVENTITIOUS AND ESCAPED PLANTS
NEW TO MISSOURI

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DURING the summers of 1954 and 1955 the writer collected plants on the rights-of-way of different railroads in St. Louis in preparation for a comprehensive adventitious flora of this city. The number of adventitious species and those escaped from cultivation totaled almost two hundred. At the suggestion of Dr. Julian A. Steyermark those plants which have not been previously recorded are being published in the following list. After omitting three or four species not readily determinable without further study, these totaled sixteen. They were, without exception, collected in the city limits of St. Louis. The writer wishes to express his appreciation for the determination, or in other cases for the verification of his identification, of the plants in question to Dr. Edgar Anderson, Dr. H. Merxmüller (Munich), Dr. Reed Rollins, Dr. G. B. Van Schaack, Dr. J. A. Steyermark and Dr. J. R. Swallen. Specimens verifying these records have been deposited in the herbaria of the Missouri Botanical Garden and the Chicago Natural History Museum.

Bromus rigidus Roth. This Mediterranean grass is a common weed in the western states, while it is only seldom introduced or adventive in the other parts of the U.S.A. It has apparently not yet been reported in any of the neighboring states to Missouri. According to Gray's Manual and Hitchcock's Manual of Grasses the nearest points at which it has been reported are in Texas, Mississippi, Virginia and Maryland. It was found in the Bremen Avenue freight yard of the Terminal Railroad, several hundred meters north of the station on a large waste place between the central and western tracks. There was only one plant, but it was a large and well developed specimen, May 30, 1955 (*V.M.* 614). The herbarium of the Missouri Botanical Garden contains one wretched specimen of this plant with only a few spikelets from Missouri. Evidently this collection has not been reported previously. The data are "Courtney, Mo., July 1, 1904 (*B. F. Bush* 2067)."

Festuca arundinacea Schreb. This European grass seems to be even rarer than the above. Gray's Manual did not mention it at all, although Hitchcock cites it from Ohio and Michigan. A few plants were found on a stone ramp covered with vegetation near to the Rutger Street Warehouse, May 14, 1955 (*V.M.* 576).

Puccinellia distans (L.) Parl. This Eurasian grass is mainly met with

in eastern and western states. In the central states there are records only from Wisconsin and Michigan. A small colony was discovered 100–200 meters north of the Municipal Bridge between the right-of-way of the Terminal Railroad and the Mississippi River levee, May 23, 1954 (*V.M.* 70). It was not found again in the summer of 1955.

Panicum texanum Buckl. A native plant of Texas, it has been introduced at several localities, especially in the southern states. According to Hitchcock's Manual, the nearest points to Missouri are in Oklahoma, Mississippi and Alabama. Gray's Manual does not mention it at all. The plant resembles *Panicum miliaceum* L. which also occurs in St. Louis and was at first mistaken for it. Only a few plants were found in Baden freight yard of M.-K.-T. Railroad, along the most western siding (near Dodridge Ave.), October 22, 1954 (*V.M.* 517). It was not observed again in the summer of 1955.

Miscanthus sinensis Anderss. While the adventitious nature of the grasses mentioned above is not questionable, the situation of this Eurasian plant seems to be otherwise. It is often cultivated for ornament because of its showy appearance. Occasionally it escapes from cultivation and naturalizes. A map in Hitchcock's Manual shows a half-a-dozen states where it is found growing wild. The nearest known points are in Texas and Alabama. Gray's Manual also mentions Ohio. In St. Louis, it has been found in the railroad yards twice: opposite the Hussmann Refrigerator Company plant, along the right-of-way of the Terminal Railroad, between West Florissant Ave. and Broadway, October 1, 1955 (*V. M.* 822A); Carrie Avenue freight yard of the Rock Island Railroad, in the northeastern corner, about 100 m. southeast of the station, November 27, 1955 (*V. M.* 860). At both localities only a few plants were found.

Erianthus Ravennae (L.) Beauv. The situation of this European grass is like that of *Miscanthus sinensis*. It is also cultivated for ornament; it also escapes from cultivation, but is rarer than the previous species. Gray's Manual mentions this grass as becoming naturalized from Maryland southward and Hitchcock's Manual as established in Arizona. It was discovered along the ditch west of the right-of-way of the Burlington Railroad, north of East Grand Ave., just opposite Cemco Manufacturing & Supply Company's building, October 17, 1954 (*V. M.* 500). There were two specimens almost 3 m. tall. As they grew in huge clumps, one of them almost 120 cm. in diameter, it may be presumed that both plants had persisted for some time. They were also observed through the summer of 1955. They could be considered to be naturalized, but the locality is a dangerous one for plants because they could be easily destroyed. The presence of *Althaea rosea* Cav. and of cultivated irises in the near vicinity suggest their origin as escapes; on the other hand, it is worthy of mention that the big elevator of the Norris Grain Corporation is only a few hundred meters north of the locality and that the area around this elevator is particularly rich in adventitious species.

Sorghum vulgare Pers. var. ***technicum*** (Koern.) Jav. (broomcorn). This variety of sorghum which furnishes the material for brooms, was

discovered by Dr. Edgar Anderson. The station was in the North St. Louis freight yard of the Burlington Railroad, along the highway which branches off the foot of Carrie Avenue to the north, August 6, 1955 (*V. M.* 711).

Silene dichotoma Ehrh. This Eurasian plant is, according to Gray's Manual and Britton and Brown's Illustrated Flora, widely distributed as a weed in the U. S. A. The data for the first record of this plant for Missouri is right-of-way of the Burlington Railroad, between East Grand Ave. and Ferry Street along the sidings. Only one specimen was found, July 9, 1955 (*V. M.* 672). The specimen was badly damaged by a sprayed weed killer, but it was still identifiable.

Spraying weeds is a widely followed practice by all the railroads in St. Louis. It was carried out in the beginning of July the last summer. The consequence was generally disastrous for the plants of the railroad tracks. The vegetation does not recover at all in very many places. In other places annuals gradually appear after a considerable time. Apparently perennials suffer least. The parts above ground mostly perish, but later they begin to come up again from roots, rhizomes, etc. Some of them even manage to produce flowers and fruits later in the same season.

Cardaria pubescens (A. Mey.) Jarm. This presumably Asiatic plant is, according to Gray's Manual and Britton and Brown's Flora, quite common in northwestern states, but apparently much rarer in other parts of the country. The nearest point to Missouri is in the state of Michigan. The data are: Lesperance Street freight yard of the Terminal Railroad between Victor and Rutger Streets, several hundred meters south of the station. One specimen, May 23, 1954 (*V. M.* 62). The plant resembles strongly the more frequent European *Cardaria Draba* (L.) Desv. The latter also occurs in St. Louis and has developed two isolated but dense stands. This growth in dense mats is very typical for *C. Draba* in Europe. According to G. Hegi (*Illustrierte Flora von Mittel-Europa*) the abundant vegetative proliferation usually forms colonies with a large number of individuals. On the contrary, only a single specimen of *Cardaria pubescens* was found in St. Louis. It was not observed again in the summer of 1955.

Raphanus Raphanistrum L. This also is a very troublesome weed in many parts of Europe, established, according to Gray's Manual and Britton and Brown's Flora, in many states of the U. S. A. Up to the present, it has not been recorded for Missouri. The data are: North St. Louis freight yard of the Burlington Railroad, in the northwestern corner, just south of Humboldt Ave., opposite the engine house of the yard. One specimen, May 30, 1955. (*V. M.* 620). The plant is quite young and does not show the typical fruit form. Nevertheless, the sepals of fully developed flowers which are all strictly erect, the outer being saccate, confirm the identification.

Sisymbrium Loeselii L. This Eurasian plant is, according to Gray's Manual and Britton and Brown's Flora, only local and occasional in our

range, while becoming a weed in the western states. The data of collections are: Lesperance Street freight yard of the Terminal Railroad south of the signal-box Carroll Street Tower. Only a single specimen, badly damaged and covered with grease, June 19, 1954 (*V. M.* 183). Not observed at the same station in the summer of 1955. Carrie Avenue freight yard of the Terminal Railroad. Four specimens, more or less isolated, mostly in the northern part of the yard, south of Humboldt Ave., May 8, 1955 (*V. M.* 570).

Lathyrus hirsutus L. This plant of southern Europe is seldom met with in the U. S. A. Gray's Manual gives the distribution as "Virginia to Alabama and Mississippi." A small colony, closely intermingled with *Vicia dasycarpa* Ten. was discovered in St. Louis on the right-of-way of the Frisco Railroad between Macklind Ave. and Evens and Howard Sewer Pipe Company's plant, along a siding, May 29, 1954 (*V. M.* 96). In spite of careful and repeated search in the summer of 1955 it was not possible to find it there again.

Hedera Helix L. The only shrubby plant in this list and a native of Europe, *H. Helix* is very often cultivated in this country. According to Gray's Manual and Britton and Brown's Flora it has occasionally escaped and partly established itself in Virginia and southward. Now it seems that this ornamental plant is also established in St. Louis in the Lindenwood freight yard of the Frisco Railroad, on the northeastern embankment of the Fyler Bridge, in the vicinity of the engine house. September 10, 1955 (*V. M.* 764). Its growth is more or less prostrate and it must have been there for some time, judging by its abundance.

Solanum tuberosum L. Escapes of common cultivated plants are often overlooked. This species has not been recorded for Missouri. It was found on the right-of-way of the Terminal Railroad just opposite the Continental Grain Company's Brooklyn Street elevator. One specimen, without flowers, probably because the collection date was an early one, May 15, 1955 (*V. M.* 584).

Petunia axillaris (Lam.) BSP. This often cultivated South American plant was found by Dr. E. Anderson. It grew on a dumping ground between the right-of-way of the Wabash Railroad and the Waterworks conduit track, north of Adelaide Ave., August 6, 1955 (*V. M.* 707). The herbarium of the Missouri Botanical Garden contains a specimen of this species from Missouri not previously reported. The data are: Collier St., Hannibal, Mo., R. R. banks, *Rev. John Davis 7517*.

Franseria discolor Nutt. North St. Louis freight yard of the Burlington Railroad, in the northwestern corner, along the sixth siding counted from the crew house in the southeast direction from the latter, August 14, 1954, September 19, 1954, September 18, 1955 (*V. M.* 349, 439 & 809) all from one quite large colony; Carrie Avenue freight yard of the Rock Island Railroad, in the southeastern part along the eastern sidings, just opposite the engine house, August 28, 1955 (*V. M.* 738). This plant is the only one in the list which could be native to Missouri. Gray's Manual gives the habitat and the range of it as, "Dry sands and plains,

Wyoming to Arizona, locally east to Illinois." The herbarium of the Missouri Botanical Garden contains two sheets of it from Illinois from McHenry County and from the vicinity of Ottawa in the valley of Illinois. At both places where I collected *F. discolor*, there were many adventitious plants in the vicinity, so it seems that in our case it is an adventitious rather than a native plant.—SAINT LOUIS MISSOURI.

PLANTS NEW TO ILLINOIS AND INDIANA AND THE CHICAGO REGION

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SINCE the publication of *The Vascular Plants of Illinois*,¹ the authors have found the following records which are of particular interest, as either new to Illinois or Indiana or to the flora of the Chicago area. All specimens are deposited in the herbarium of the Chicago Natural History Museum.

1. ADDITIONS TO THE FLORA OF ILLINOIS

Beckmannia syzigachne (Steud.) Fern. In their *Vascular Plants of Illinois*, Jones et al. record this species only from Clyde, Cook Co., the collection by L. M. Umbach. This station is now destroyed. However, the species has recently been collected in the state. The data for the new record are as follows: marshy ground on the south shore of Loon Lake near the village of Loon Lake, Lake Co., July 23, 1955, *Swink 2772*.

Miscanthus sacchariflorus (Maxim.) Hack. This eastern Asiatic ornamental grass, not included in the Eighth edition of Gray's Manual, is reported in the Hitchcock-Chase Manual of the Grasses of the United States as an escape in Clinton County, Iowa. Mr. Chester E. Hansen, faculty member at the Oak Park (Illinois) High School, recently collected the grass in Muscatine County, Iowa, and Rock Island County, Illinois. This Rock Island County collection and an earlier collection by the senior author² at Glen Ellyn, Du Page County, Illinois, constitute the first records for this state. The data for these collections are: in ditch along an improved road just east of Mississippi River, about 1 mile south of route 92, Rock Island County, Sept. 5, 1955, *Hansen 4*; vacant lot just south of 215 Lorraine Road, Glen Ellyn, Du Page Co., Oct. 30, 1951, *Steyermark 73078*.

Polygonum cespitosum Blume, var. **longisetum** (De Bruyn) Stewart. Although this has been noted in backyards and gardens in Chicago,

¹ Jones, Geo. Neville, Fuller, Geo. D., Winterringer, Glen S., Ahles, H. E., & Flynn, Alice A. *Vascular Plants of Illinois*. 46. 1955.

² Steyermark, J. A. *Bull. Chi. Nat. Hist. Mus.* 23 (3): 5. March, 1952.